



# Hexagon Crusher Monitor

## Enhance your crusher and increase productivity

**Hexagon Crusher Monitor** is a cutting-edge radar-based automation and optimisation solution family, designed to improve efficiency and safety in crushing operations for the mining and bulk material handling industries. By utilising advanced radar technology and intelligent process control, the Crusher Monitor delivers precise monitoring and real-time data to help operators maximise throughput, reduce equipment wear, and prevent costly downtime. The Crusher Monitor transforms crushing operations by combining radar precision with advanced automation. It empowers operators with actionable insights and real-time data, ensuring crushers operate at peak efficiency while minimising safety risks and unplanned downtime. Whether managing a primary or secondary crusher, the Crusher Monitor is your reliable partner for smarter, safer, and more efficient crushing operations.

Hexagon's solutions address the diverse needs of operations, from reducing energy consumption to improving safety protocols. With a focus on delivering fast ROI and aligning with ESG priorities, our systems deliver measurable results, ensuring your mining operations are optimised for today and the future.

Unlike LiDAR or optical systems, radar technology maintains its precision and accuracy even in the most demanding environmental conditions. Its ability to penetrate dust, dense fog, extreme cold, and intense heat makes it an unmatched solution in mining, bulk logistics, and underground operations, where extreme dust, moisture, and temperature fluctuations are common. Hexagon's radar solutions ensure consistent performance and reliability where other systems struggle.

## Benefits

- **Increase crusher availability by up to 29%:**  
Supports more uptime and fewer interruptions.
- **Increase productivity by up to 21%:**  
Improves throughput and plant performance.
- **Measurement error less than 1%:**  
Provides highly accurate monitoring data.
- **Optimise dumping sequence:**  
Helps improve material flow and operational efficiency.
- **Reduce OPEX by up to 33%:**  
Lowers operating costs through better control and reduced wear.
- **Reduce blockage-related downtime:**  
Enables immediate intervention when blockages occur, allowing the rock breaker to clear the blockage before the next truck dumps on top.



## Features

- **Detect blockages and monitor material profiles:**  
Provides continuous visibility into material flow and blockage conditions.
- **Control feed rate to keep crushers running smoothly:**  
Helps maintain steady operation by adjusting feed behaviour.
- **Trend analysis of dump pocket volume and feed rate:**  
Tracks volume and feed patterns over time to support better decisions.
- **Manage wear and damage to the crusher and apron feeder:**  
Helps reduce equipment wear by managing material fill level.
- **Empowered through online Human-Machine Interface (HMI):**  
Reduces worker exposure by enabling remote monitoring.
- **Radar-based sensors operate without physical contact, resistant to dust, vibration, and harsh environmental conditions:**  
Delivers reliable performance in demanding plant environments.
- **Integrates seamlessly with existing plant control systems, including SCADA, DCS, and PLC platforms:**  
Fits into current control infrastructure without major disruption.

## Included tools

Tools	Key capabilities
<b>Dump-pocket-status</b>	Truck dump detection further enables automation and blockage analysis logic, improving dispatch and avoiding queuing
<b>Truck and tray spotting</b>	Detect truck presence and position, allowing automation and safety interlock
<b>Feed monitoring</b>	High speed feed measurement improves dump timing and supports optimal crusher utilisation; preventing overloaded or starving crusher operations.
<b>Blockage detection</b>	Continuously monitors dump-pocket material to provide high-speed level data to the automation system. Tracks 3D surface profile changes and segmented volume flow to enable early, reliable blockage detection. This prevents dumping onto a blocked crusher and improves crusher availability by supporting rapid blockage clearance.
<b>Additional systems</b>	<ul style="list-style-type: none"> <li>• Reliable level measurement for secondary or tertiary downstream crushers.</li> <li>• Integrated filtering of falling material and a focused measurement of the material level allow operators to maintain a consistent choke feed.</li> <li>• The Hexagon Fill Monitor for apron feeders—commonly used for vault control below primary crushers—manages load profiles to prevent low material levels, extending apron feeder life by more than 5%.</li> </ul>

## About Hexagon:

Hexagon is the global leader in measurement technologies. We provide the confidence that vital industries rely on to build, navigate, and innovate. From microns to Mars, our solutions ensure productivity, quality, and sustainability in everything from manufacturing and construction to mining and autonomous systems. Hexagon's Mining Division connects measurement and autonomy across surface and underground operations, pushing the boundaries of autonomous technology and data insights to help customers optimise resources and move material safely.

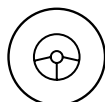
This offering includes solutions to support:



**Evaluation,  
Planning  
& Design**



**Drill & Blast**



**Load & Haul**



**Survey &  
Monitoring**



**Processing**



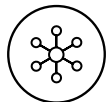
**Reclamation**



**Safety**



**Autonomous  
Operations**



**Insights**

## Connect with us

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